Customer No.: 31561
Application No.: 10/604,822
Docket No.: 11259-US-PA

AMENDMENT

In the Claims

Please amend the claims as follows:

Claims 1-4 (canceled)

Claim 5 (currently amended) A driving method of a liquid crystal display comprising a back-light module and a liquid crystal display panel, wherein the liquid crystal display panel has a plurality of pixels, the driving method of the liquid crystal display comprising the steps of:

dividing a plurality of grayscale values 0, 1, 2, ..., N into a plurality of segments, where N is the highest grayscale of the image display system;

detecting a maximum grayscale X of all pixels in the present image;

adjusting output brightness of the back-light module to (Y / N) ×L, where Y is upper limit of one of the segments in which the maximum grayscale X is located, L is a corresponding output brightness of the back-light module to the grayscale N, wherein the corresponding output brightness of the back-light module is retained when the grayscale maximum X is located in either a range between Y and Y + S or a range between Z – S and Z of a present image, where Z is lower limit of one of the segments in which segment the grayscale maximum X is located and S is the predetermined threshold; and

adjusting a grayscale value Xa of each pixel to a mapping grayscale value Xb, and driving each of the pixels with the grayscale value Xb accordingly.

Claim 6 (original) The driving method of the liquid crystal display as recited in claim 5, wherein a mapping correlation between the grayscale value Xa and the grayscale value Xb is linear, and the mapping correlation is performed as Xb = (Xa / Y) ×N.

Claim 7 (original) The driving method of the liquid crystal display as recited in claim 5, wherein the mapping correlation between the grayscale value Xa and the grayscale value Xb is nonlinear.

Claims 8-10 (canceled)

Claim 11 (original) The driving method of the liquid crystal display as recited in claim 5, wherein light transmittance of each of the pixels is adjusted by a bias voltage based on the grayscale value Xb.

Claim 12 (currently amended) A driving method of a liquid crystal display comprising a back-light module and a liquid crystal display panel, wherein the liquid crystal display panel has a plurality of pixels, the driving method of the liquid crystal display comprising:

dividing a plurality of grayscale values 0, 1, 2, ..., N into a plurality of segments, where N is the highest grayscale of the image display system, thereby the

brightness of the back-light module is also divided into a plurality of values corresponding to the grayscale segments respectively;

detecting a maximum grayscale X of all pixels in the present image;

adjusting the output brightness of the back-light module to one of the plurality of values for the brightness of the back-light module, wherein the plurality of values are corresponding to the grayscale segments respectively; and

adjusting a grayscale value Xa of each pixel to a mapping grayscale value Xb, and driving each of the pixels with the grayscale value Xb accordingly, wherein a mapping correlation between the grayscale value Xa and the grayscale value Xb is linear, and the mapping correlation is performed as $Xb = (Xa/Y) \times N$, where Y is an upper limit of one of the segments in which the maximum grayscale X is located.

Claim 13 (canceled)